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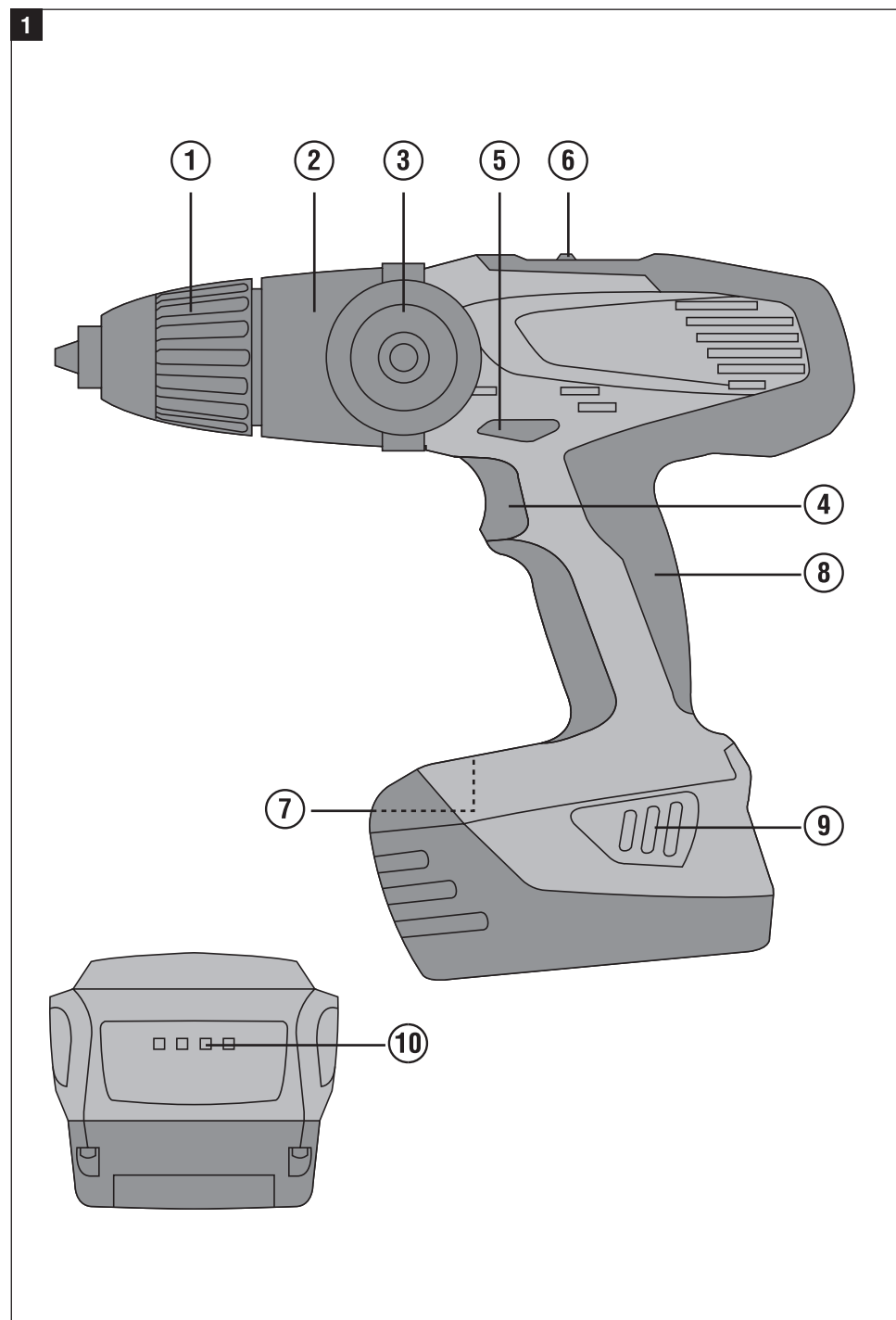
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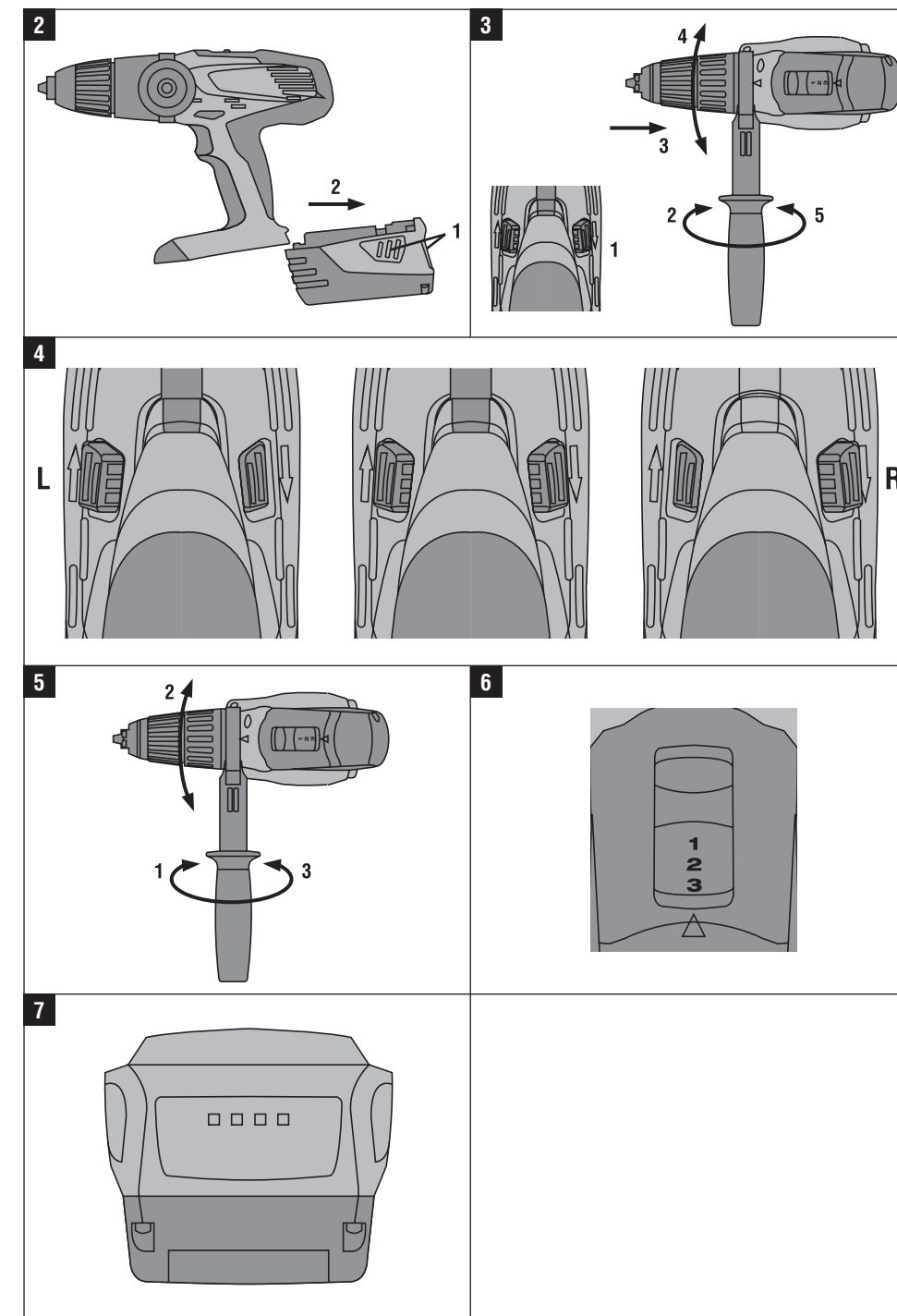
SF(H) 18-A

| | |
|-------------------------|--------------------|
| Operating instructions | en |
| Mode d'emploi | fr |
| Manual de instrucciones | es |
| Manual de instruções | pt |





This product is UL listed to US and Canadian safety standards
Ce produit est homologué UL (conforme aux normes de sécurité américaines et canadiennes)
Producto homologado según normas de seguridad americanas y canadienses
Produto homologado de acordo com as normas de segurança americanas e canadianas



ORIGINAL OPERATING INSTRUCTIONS

SF(H) 18-A Cordless drill/driver / cordless hammer drill/driver

en

It is essential that the operating instructions are read before the power tool is operated for the first time.

Always keep these operating instructions together with the power tool.

Ensure that the operating instructions are with the power tool when it is given to other persons.

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1 These numbers refer to the corresponding illustrations. The illustrations can be found on the fold-out cover pages. Keep these pages open while studying the operating instructions.

In these operating instructions, the designation "power tool" refers to the SF 18-A cordless drill/driver or SFH 18-A cordless hammer drill/driver with battery fitted.

Parts, operating controls and indicators **1**

- ① Keyless chuck
- ② Setting ring for torque, drilling and hammer drilling
- ③ Side handle
- ④ Control switch (with electronic speed control)
- ⑤ Forward / reverse selector switch with transport lock
- ⑥ 3-speed gear selector
- ⑦ Type identification plate
- ⑧ Grip
- ⑨ Release buttons with additional function (charge status display activation)
- ⑩ Charge status and fault display (Li-ion battery)

1. General information

1.1 Safety notices and their meaning

DANGER

Draws attention to imminent danger that could lead to serious bodily injury or fatality.

WARNING

Draws attention to a potentially dangerous situation that could lead to serious personal injury or fatality.

CAUTION

Draws attention to a potentially dangerous situation that could lead to slight personal injury or damage to the equipment or other property.

NOTE

Draws attention to an instruction or other useful information.

1.2 Explanation of the pictograms and other information

Warning signs



General warning



Warning: electricity



Warning: caustic substances

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Obligation signs



Wear eye protection



Wear a hard hat



Wear ear protection



Wear protective gloves



Wear breathing protection

Symbols



Read the operating instructions before use



Volts



Direct current



Rated speed under no load



Revolutions per minute



Hammer drilling



Drilling without hammering



Return waste material for recycling.

Location of identification data on the power tool

The type designation can be found on the type identification plate at the base of the power tool and the serial number on the side of the casing. Make a note of this data in your operating instructions and always refer to it when making an enquiry to your Hilti representative or service department.

Type:

Generation: 01

Serial no.:

2. Description

2.1 Use of the product as directed

The SF 18-A is a hand-held, cordless drill/driver for driving and removing screws and for drilling in steel, wood and plastic.

The SFH 18-A is a hand-held, cordless hammer drill/driver for driving and removing screws, for drilling in steel, wood and plastic and for hammer drilling in lightweight concrete and masonry.

Working on materials hazardous to the health (e.g. asbestos) is not permissible.

Do not use the battery as a power source for other unspecified appliances.

Modification of the power tool or tampering with its parts is not permissible.

To avoid the risk of injury, use only genuine Hilti accessories and insert tools.

Observe the information printed in the operating instructions concerning operation, care and maintenance.

The power tool is designed for professional use and may be operated, serviced and maintained only by trained, authorized personnel. This personnel must be informed of any special hazards that may be encountered. The power tool and its ancillary equipment may present hazards when used incorrectly by untrained personnel or when used not as directed.

The working environment may be as follows: construction site, workshop, renovation, conversion or new construction.

2.2 Chuck

Keyless chuck

2.3 Switches

Control switch with electronic speed control

3-speed gear selector

Forward / reverse selector switch with transport lock

Setting ring for torque, drilling and hammer drilling

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2.4 Grips

Pivotable side handle

Vibration-absorbing grip

2.5 Lubrication

Grease lubrication

2.6 The items supplied include (toolbox versions):

- 1 Power tool
- 1 Side handle
- 1 Operating instructions
- 1 Hilti toolbox

2.7 The items supplied include (cardboard box versions):

- 1 Power tool
- 1 Side handle
- 1 Operating instructions

2.8 Additional items required for operating the tool

B 18/2.6 Li-ion battery with C 4/36 or C 4/36-ACS or C 4/36-ACS TPS charger

2.9 Li-ion battery charge status and overheating indicator

| LEDs light constantly | LEDs blink | Charge status C |
|-----------------------|------------|------------------------|
| LED 1,2,3,4 | - | $C \geq 75 \%$ |
| LED 1,2,3 | - | $50 \% \leq C < 75 \%$ |
| LED 1,2 | - | $25 \% \leq C < 50 \%$ |
| LED 1 | - | $10 \% \leq C < 25 \%$ |
| - | LED 1 | $C < 10 \%$ |
| - | LED 1 | Battery overheated |

2.10 Power tool overloading and overheating indicator

The power tool is equipped with an electronic protection system to prevent overloading and overheating. The power tool switches itself off automatically in the event of overloading and overheating. After releasing the control switch, the power tool may not restart immediately when the switch is pressed again (while the power tool is cooling down).

| LEDs light constantly | LEDs blink | Power tool status |
|-----------------------|-------------|-------------------------------------|
| - | LED 1,2,3,4 | Power tool overloaded or overheated |

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3. Insert tools, accessories

| | |
|--|---------------------------------|
| Bit holder | S-BH 50 |
| Charger for Li-ion batteries | C 4/36 |
| Charger for Li-ion batteries | C 4/36-ACS |
| Charger for Li-ion batteries | C 4/36-ACS TPS |
| Battery | B 18/2.6 Li-ion |
| Keyless chuck clamping range | Ø 1.5...13 mm (1/16" to 1/2") |
| Drilling diameter range in wood (soft) | Ø 1.5...32 mm (1/16" to 1 1/4") |
| Drilling diameter range in wood (hard) | Ø 1.5...20 mm (1/16" to 3/4") |
| Drilling dia. range in metal | Ø 1.5...13 mm (1/16" to 1/2") |
| Wood screws (max. length 240 mm) | Ø 3...10 mm (1/8" to 3/8") |
| Driving screws in plastic anchors (max. length 120 mm) | Ø Max. 10 mm (max. 3/8") |

4. Technical data

Right of technical changes reserved.

| Power tool | SF 18-A | SFH 18-A |
|---|---|--|
| Rated voltage (DC voltage) | 21.6 V | 21.6 V |
| Weight of power tool | 2.5 kg (5.5 lb) | 2.6 kg (5.7 lb) |
| Dimensions (L x W x H) | 248 mm (9.77") x 92 mm (3.62") x 244 mm (9.61") | 265 mm (10.43") x 92 mm (3.62") x 244 mm (9.61") |
| Speed in 1st gear | 0...370/min | 0...370/min |
| Speed in 2nd gear | 0...1,250/min | 0...1,250/min |
| Speed in 3rd gear | 0...2,140/min | 0...2,140/min |
| Torque with tool set to drilling symbol (soft/flexible joint) | Max. 50 Nm (444 in/lbs) | Max. 50 Nm (444 in/lbs) |
| Torque range (15 settings) | 2...12 Nm (12 in/lbs...108 in/lbs) | 2...12 Nm (12 in/lbs...108 in/lbs) |
| Hammering speed when drilling in 3rd gear | | 39,000/min |
| Hammer drilling in masonry (max. length 100 mm) | | Ø 4...12 mm (1/8" ... 1/2") |
| Battery | B 18/2.6 Li-ion | |
| Rated voltage | 21.6 V | |
| Capacity | 2.6 Ah | |
| Energy content | 56.16 Wh | |

| | |
|------------------------|------------------------|
| Battery | B 18/2.6 Li-ion |
| Weight | 0.78 kg (1.72 lb) |
| Temperature monitoring | Yes |
| Type of cell | Lithium-ion |
| No. of cells | 12 |

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5. Safety instructions

NOTE

The safety rules in section 5.1 contain all general safety rules for power tools which, in accordance with the applicable standards, require to be listed in the operating instructions. Accordingly, some of the rules listed may not be relevant to this tool.

5.1 General power tool safety warnings

WARNING! Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. **Save all warnings and instructions for future reference.** The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

5.1.1 Work area safety

- a) **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- c) **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

5.1.2 Electrical safety

- a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.

- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

5.1.3 Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- b) **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- d) **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.

- f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
- g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.

5.1.4 Power tool use and care

- a) **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
- b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
- e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
- f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

5.1.5 Battery tool use and care

- a) **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.

- b) **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
- c) **When battery pack is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
- d) **Under abusive conditions, liquid may be ejected from the battery, avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.

5.1.6 Service

- a) **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

5.2 Additional safety instructions

5.2.1 Personal safety

- a) **Wear ear protectors with impact drills.** Exposure to noise can cause hearing loss.
- b) **Use auxiliary handles supplied with the tool.** Loss of control can cause personal injury.
- c) **Hold power tools by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.
- d) **Keep the grips dry, clean and free from oil and grease.**
- e) **Improve the blood circulation in your fingers by relaxing your hands and exercising your fingers during breaks between working.**
- f) **Avoid touching rotating parts. Switch the power tool on only after bringing it into position at the workpiece.** Touching rotating parts, especially rotating insert tools, may lead to injury.
- g) **Activate the safety lock (forward / reverse switch in the middle position) before storing or transporting the power tool.**
- h) **The appliance is not intended for use by children, by debilitated persons or those who have received no instruction or training.**

- i) **Children must be instructed not to play with the appliance.**
- j) **WARNING: Some dust created by grinding, sanding, cutting and drilling contains chemicals known to cause cancer, birth defects, infertility or other reproductive harm; or serious and permanent respiratory or other injury.** Some examples of these chemicals are: lead from lead-based paints, crystalline silica from bricks, concrete and other masonry products and natural stone, arsenic and chromium from chemically-treated lumber. Your risk from these exposures varies, depending on how often you do this type of work. **To reduce exposure to these chemicals, the operator and bystanders should work in a well-ventilated area, work with approved safety equipment, such as respiratory protection appropriate for the type of dust generated, and designed to filter out microscopic particles and direct dust away from the face and body. Avoid prolonged contact with dust. Wear protective clothing and wash exposed areas with soap and water.** Allowing dust to get into your mouth, eyes, or to remain on your skin may promote absorption of harmful chemicals.

5.2.2 Power tool use and care

- a) **Secure the workpiece. Use clamps or a vice to secure the workpiece.** The workpiece is thus held more securely than by hand and both hands remain free to operate the power tool.
- b) **Check that the insert tools used are compatible with the chuck system and that they are secured in the chuck correctly.**

5.2.3 Battery tool use and care

- a) **Ensure the switch is in the off position before inserting battery pack.** Inserting the battery pack into power tools that have the switch on invites accidents.
- b) **Do not expose batteries to high temperatures or fire.** This presents a risk of explosion.
- c) **Batteries must not be opened or dismantled, squashed, heated to temperatures over 100°C or incinerated.** A risk of fire, explosion or injury through contact with caustic substances may otherwise result.
- d) **Avoid ingress of dampness.** Dampness may cause a short circuit resulting in a risk of burning injury or fire.

- e) **Do not use batteries other than those approved for use with the applicable power tool or appliance.** Use of other batteries or use of the battery for purposes for which it is not intended presents a risk of fire and explosion.
- f) **Observe the special instructions applicable to the transport, storage and use of Li-ion batteries.**
- g) **Avoid short-circuiting the battery. Check that the terminals on the battery and in the power tool are free from foreign objects before inserting the battery in the power tool.** Short circuiting the battery terminals presents a risk of fire, explosion and chemical burns.
- h) **Do not charge or continue to use damaged batteries (e.g. batteries with cracks, broken parts, bent or pushed-in and/or pulled-out contacts).**
- i) **Hold tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.

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5.2.4 Electrical safety



Before beginning work, check the working area (e.g. using a metal detector) to ensure that no concealed electric cables or gas and water pipes are present. External metal parts of the power tool may become live, for example, when an electric cable is damaged accidentally. This presents a serious risk of electric shock.

5.2.5 Work area

- a) **Ensure that the workplace is well lit.**
- b) **Ensure that the workplace is well ventilated.** Exposure to dust at a poorly ventilated workplace may result in damage to the health.

5.2.6 Personal protective equipment



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The user and any other persons in the vicinity must wear ANSI Z87.1-approved eye protection, a hard

hat, ear protection, protective gloves and breathing protection while the power tool is in use.

6. Before use



6.1 Battery use and care

NOTE

Battery performance drops at low temperatures. Use a battery only when it has been fully charged. This ensures that maximum battery capacity is available. Change to the second battery as soon as a drop in performance is noticed. Recharge the battery immediately so that it is ready for reuse.

Store the battery in a cool, dry place. Never store the battery where it is exposed to direct sunlight or sources of heat, e.g. on heaters / radiators or behind a motor vehicle windscreen. Batteries that have reached the end of their life must be disposed of safely and correctly to avoid environmental pollution.

6.2 Charging the battery



DANGER

Use only the Hilti batteries and Hilti chargers listed under "Accessories".

6.2.1 Charging a new battery for the first time

Charge the battery fully before using it for the first time.

6.2.2 Charging a previously used battery

Ensure that the outer surfaces of the battery are clean and dry before inserting it in the corresponding charger.

Read the operating instructions for the charger for further information about the charging procedure.

Li-ion batteries are ready for use at any time, even when only partly charged. Charging progress is indicated by the LED display (see charger operating instructions).

6.3 Fitting the battery

CAUTION

Before fitting the battery, check that the power tool is switched off and that the transport lock is engaged (forward/reverse switch in the middle position). Use only the Hilti batteries approved for use with this power tool.

CAUTION

Check that the terminals on the battery and in the power tool are free from foreign objects before inserting the battery in the power tool.

1. Push the battery into the power tool from the rear as far as it will go and until it is heard to engage with a double click.
2. **CAUTION A falling battery may present a risk of injury to yourself or others.**

Check that the battery is seated securely in the power tool.

6.4 Removing the battery 2

1. Press both battery release buttons.
2. Pull the battery out of the power tool toward the rear.

6.5 Fitting the side handle 3

1. Set the forward / reverse switch to the middle position (transport lock) or remove the battery from the power tool.

2. Release the side handle clamping band by turning the handle counterclockwise.
3. Slide the side handle clamping band over the chuck and onto the clamping section at the front end of the power tool.
4. Pivot the side handle into the desired position.
5. Secure the side handle by turning the grip clockwise.
6. Check that the side handle holds securely.

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7. Operation



CAUTION

The tool may get hot during use. **Wear protective gloves.**

CAUTION

The power tool may suddenly swing to the side (rotate about its own axis) when drilling, hammer drilling or screwdriving. **Always use the power tool with the side handle fitted and hold it securely with both hands.**

CAUTION

To avoid injuries caused by the insert tool, wear protective gloves when changing insert tools.

7.1 Setting forward or reverse rotation 4

NOTE

The forward / reverse switch is used to select the direction of rotation of the drive spindle. An interlock prevents switching while the motor is running. The control switch is locked when the forward / reverse switch is in the middle position. Push the forward / reverse switch to the right (power tool held in working direction) to select forward rotation. Push the forward / reverse switch to the left (power tool held in working direction) to select reverse rotation.

7.2 Adjusting the side handle 5

1. Release the side handle clamping band by turning the handle counterclockwise.
2. Pivot the side handle into the desired position.
3. Tighten the side handle by turning the grip clockwise.

4. Check that the side handle holds securely.

7.3 Speed selection with the 3-gear switch 6

NOTE

The mechanical 3-speed gear switch can be used to select the speed range required. Speed with fully-charged battery. 1st gear: 0-370 /min, 2nd gear: 0-1120 /min or 3rd gear: 0-2090 /min

7.4 Switching on / off

Speed of rotation can be controlled smoothly up to maximum speed by pressing the control switch slowly.

7.5 Fitting the drill bit

1. Set the forward / reverse switch to the middle position or remove the battery from the power tool.
2. Check that the connection end of the drill bit is clean. Clean the connection end if necessary.
3. Insert the drill bit in the keyless chuck and then turn the chuck firmly by hand until several clicks are heard.
4. Check that the drill bit is held securely.

7.6 Removing the drill bit

1. Set the forward / reverse switch to the middle position or remove the battery from the power tool.
2. Open the keyless chuck.
3. Pull the insert tool out of the chuck.

7.7 Drilling

CAUTION

Use clamps or a vice to secure the workpiece. The workpiece is thus held more securely than by hand and both hands remain free to operate the power tool.

1. Turn the torque and operating mode setting ring to the drilling symbol.
2. Move the forward / reverse switch to the "Forward" position.

7.8 Hammer drilling (SFH 18-A)

1. Turn the torque and operating mode setting ring to the hammer drilling symbol.
2. Move the forward / reverse switch to the "Forward" position.

7.9 Screwdriving

7.9.1 Fitting the bit holder / bit

1. Set the forward / reverse switch to the middle position or remove the battery from the power tool.
2. Open the quick-release chuck.
3. Insert the bit adapter in the keyless chuck and then turn the chuck firmly by hand until tight.
4. Check that the bit adapter is held securely (check by pulling).
5. Fit the bit in the bit holder.

7.9.2 Screwdriving

1. Turn the torque, drilling and hammer drilling setting ring to the required torque setting.
2. Set the forward / reverse switch to the desired direction of rotation.

7.9.3 Removing the bit / bit holder

1. Set the forward / reverse switch to the middle position or remove the battery from the power tool.
2. Remove the bit from the bit holder.
3. Open the keyless chuck.
4. Remove the bit adapter.

7.10 Reading the charge status LED display on Li-ion batteries 7

NOTE

The charge status cannot be indicated while the power tool is in operation. If LED 1 blinks, this indicates that the battery is either fully discharged or too hot (temperature above 80°C/ 176°F). The battery must then be inserted in the charger. If all 4 LEDs blink, this indicates that the power tool has been overloaded or has overheated.

The Li-ion battery features a charge status LED display. The charge status is indicated by the LEDs on the battery during charging (please refer to the operating instructions for the charger). When the battery is not in use, pressing one of the battery release buttons or inserting the battery into the power tool causes the battery charge status to be displayed by the four LEDs for three seconds.

8. Care and maintenance

CAUTION

Before beginning cleaning, remove the battery from the power tool in order to prevent unintentional starting.

8.1 Care of insert tools

Clean off dirt and dust deposits adhering to the insert tools and protect them from corrosion by wiping the insert tools from time to time with an oil-soaked rag.

8.2 Care of the power tool

CAUTION

Keep the power tool, especially its grip surfaces, clean and free from oil and grease. Do not use cleaning agents which contain silicone.

The outer casing of the power tool is made from impact-resistant plastic. Sections of the grip are made from a synthetic rubber material.

Never operate the power tool when the ventilation slots are blocked. Clean the ventilation slots carefully using a dry brush. Do not permit foreign objects to enter the interior of the power tool. Clean the outside of the power tool at regular intervals with a slightly damp cloth. Do not use a spray, steam pressure cleaning equipment or running water for cleaning. This may negatively affect the electrical safety of the power tool.

8.3 Care of the Li-ion battery

Avoid entrance of moisture.

Charge the battery fully before using it for the first time.

In order to achieve maximum battery life, stop discharging the battery as soon as a significant drop in performance is noticed.

NOTE

If use of the power tool continues, battery discharge is stopped automatically (indicated by LED 1 blinking) before the battery cells suffer damage.

Charge the battery with the Hilti charger approved for use with Li-ion batteries.

NOTE

- A conditioning charge (as is required with NiCd or NiMH batteries) is not necessary.

- Interruption of the charging procedure has no negative effect on battery life.

- Charging can be started at any time with no negative effect on battery life. There is no memory effect (as with NiCd or NiMH batteries).

- For best results, batteries should be stored fully charged in a cool dry place. Avoid charging the battery in places subject to high ambient temperatures (e.g. at a window) as this has an adverse effect on battery life and increases the rate of self-discharge.

- If the battery no longer reaches full charge, it may have lost capacity due to aging or overstressing. It is possible to continue working with a battery in this condition but it should be replaced in good time.

8.4 Maintenance

WARNING

Repairs to the electrical section of the power tool may be carried out only by trained electrical specialists.

Check all external parts of the power tool for damage at regular intervals and check that all controls operate faultlessly. Do not operate the power tool if parts are damaged or when the controls do not function faultlessly. If necessary, the power tool should be repaired by Hilti Service.

8.5 Checking the power tool after care and maintenance

After carrying out care and maintenance work on the power tool, check that all protective and safety devices are fitted and that they function faultlessly.

9. Troubleshooting

| Fault | Possible cause | Remedy |
|--|--|--|
| The power tool doesn't run. | The battery is discharged or fitted incorrectly. | The battery must be heard to engage with a double click or, respectively, needs to be charged. |
| | Electrical fault. | Remove the battery from the power tool and contact Hilti Service. |
| The power tool doesn't run and all 4 LEDs blink. | The power tool has been overloaded. | Release the control switch and press it again. |
| | The overheating prevention cut-out has been activated. | Allow the power tool to cool down. Clean the ventilation slots. |
| The power tool doesn't run and 1 LED blinks. | The battery is discharged. | Change the battery and recharge the discharged battery. |
| | The battery is too hot or too cold. | Bring the battery to the recommended working temperature. |

| Fault | Possible cause | Remedy |
|--|---|--|
| No hammering action. | The torque and operating mode setting ring are not set to the hammer drilling symbol. | Turn the torque and operating mode setting ring to the hammer drilling symbol. |
| The on / off switch can't be pressed, i.e. the switch is locked. | The forward / reverse switch is in the middle position (transport lock engaged). | Push the forward / reverse switch to the left or right. |
| The battery runs down more quickly than usual. | Battery condition is not optimal. | Have battery condition diagnosed by Hilti Service or replace with a new battery. |
| The battery doesn't engage with an audible double click. | The retaining lugs on the battery are dirty. | Clean the retaining lugs and check that the battery engages securely. Contact Hilti Service if the problem persists. |
| The power tool or the battery gets very warm. | Electrical fault. | Switch the power tool off immediately, remove the battery and contact Hilti Service. |
| | The power tool has been overloaded (application limits exceeded). | Use the right power tool for the job (don't use a low-powered tool for heavy work). |

10. Disposal

CAUTION

Improper disposal of the equipment may have serious consequences: The burning of plastic components generates toxic fumes which may present a health hazard. Batteries may explode if damaged or exposed to very high temperatures, causing poisoning, burns, acid burns or environmental pollution. Careless disposal may permit unauthorized and improper use of the equipment. This may result in serious personal injury, injury to third parties and pollution of the environment.

CAUTION

Dispose of defective batteries without delay. Keep them out of reach of children. Do not attempt to open or dismantle batteries and do not dispose of them by incineration.

CAUTION

Dispose of the batteries in accordance with national regulations or return them to Hilti.



Most of the materials from which Hilti power tools or appliances are manufactured can be recycled. The materials must be correctly separated before they can be recycled. In many countries, Hilti has already made arrangements for taking back your old power tools or appliances for recycling. Please ask your Hilti customer service department or Hilti representative for further information.



Batteries

Hilti Li-ion batteries contain lithium-ion cells.

Both you and Hilti bear responsibility for the recycling of worn-out batteries in keeping with environmental protection requirements.

Do not throw worn-out batteries into household waste, a fire or water.

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11. Manufacturer's warranty - tools

Hilti warrants that the tool supplied is free of defects in material and workmanship. This warranty is valid so long as the tool is operated and handled correctly, cleaned and serviced properly and in accordance with the Hilti Operating Instructions, and the technical system is maintained. This means that only original Hilti consumables, components and spare parts may be used in the tool.

This warranty provides the free-of-charge repair or replacement of defective parts only over the entire lifespan of the tool. Parts requiring repair or replacement as a result of normal wear and tear are not covered by this warranty.

Additional claims are excluded, unless stringent national rules prohibit such exclusion. In particular, Hilti is not obligated for direct, indirect, incidental or consequential damages, losses or expenses in connection with, or by reason of, the use of, or inability to use the tool for any purpose. Implied warranties of merchantability or fitness for a particular purpose are specifically excluded.

For repair or replacement, send the tool or related parts immediately upon discovery of the defect to the address of the local Hilti marketing organization provided.

This constitutes Hilti's entire obligation with regard to warranty and supersedes all prior or contemporaneous comments and oral or written agreements concerning warranties.

HILTI

TE 4-A18

Operating instructions

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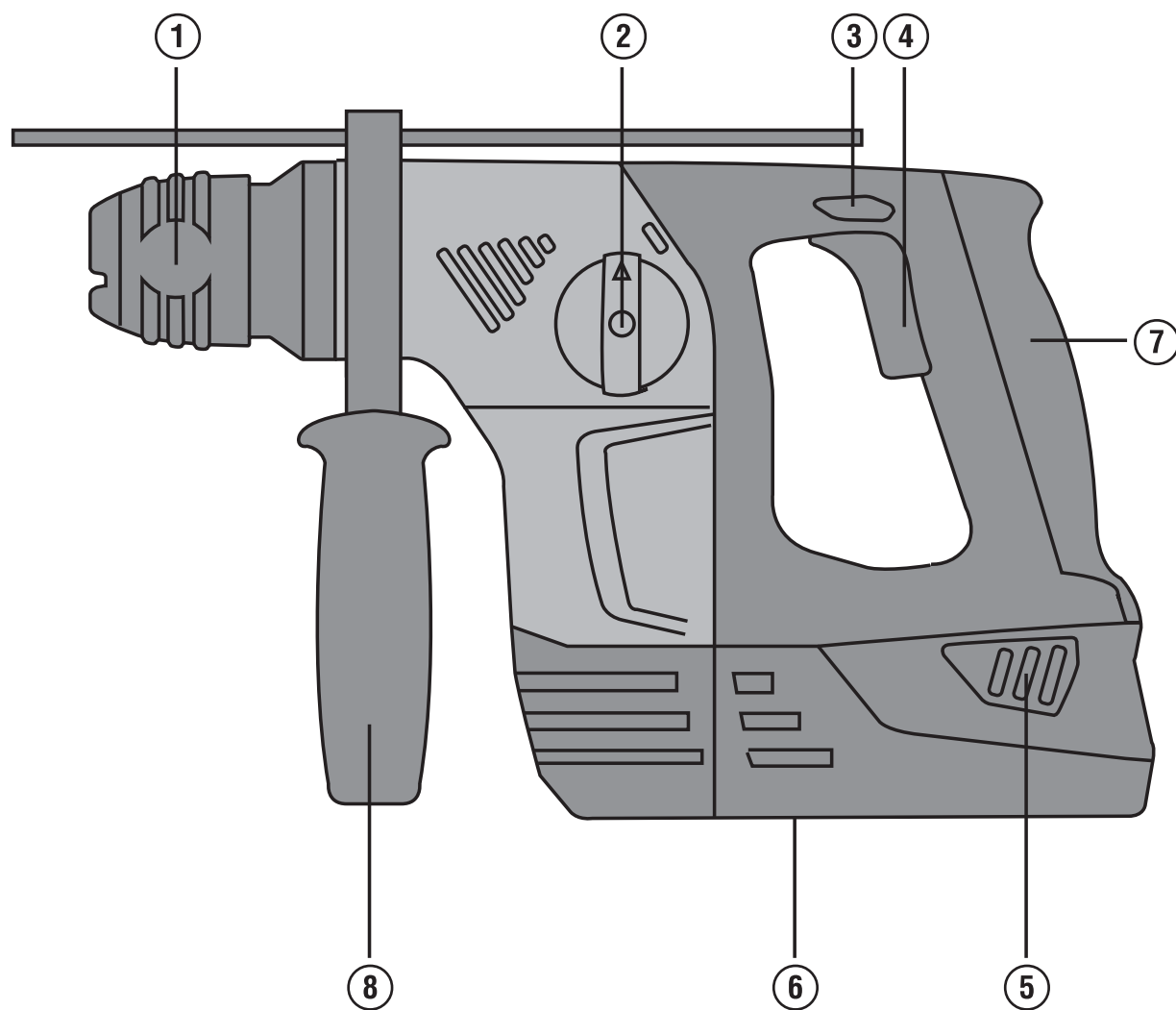
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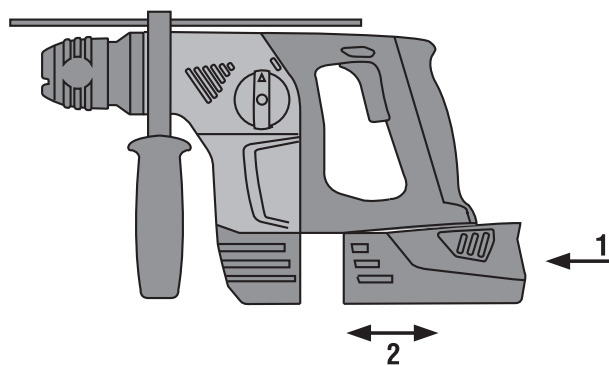




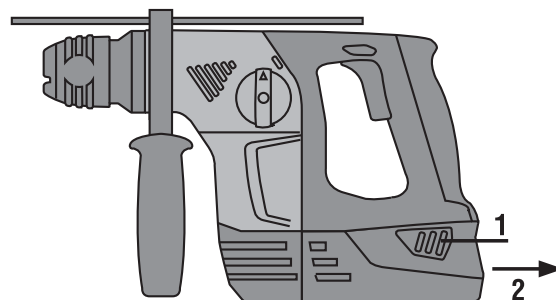
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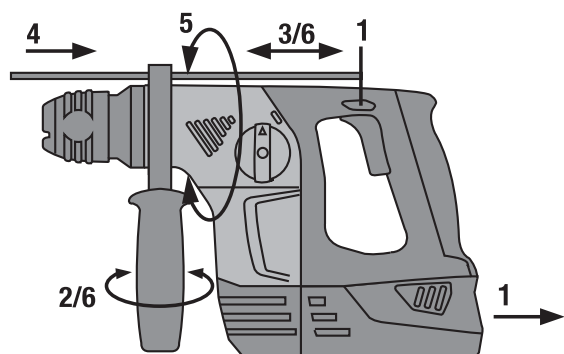
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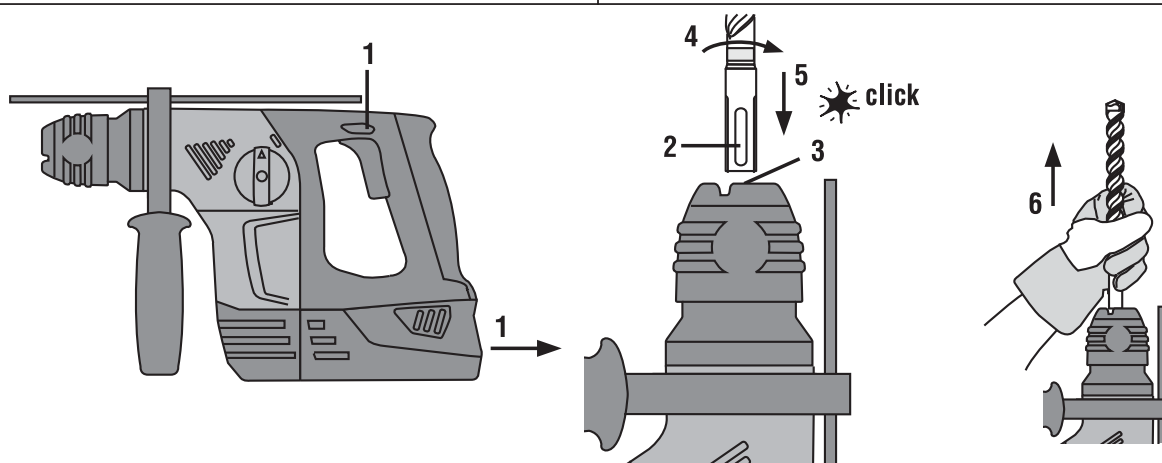
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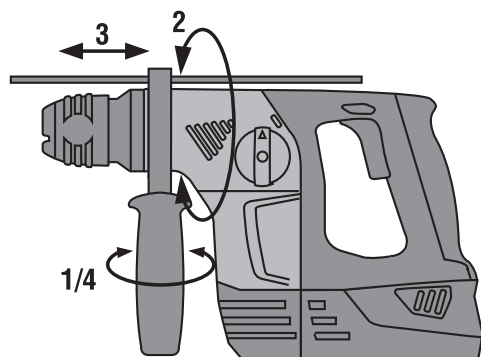
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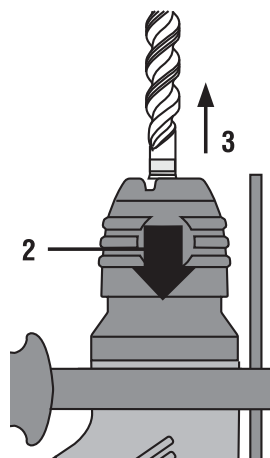
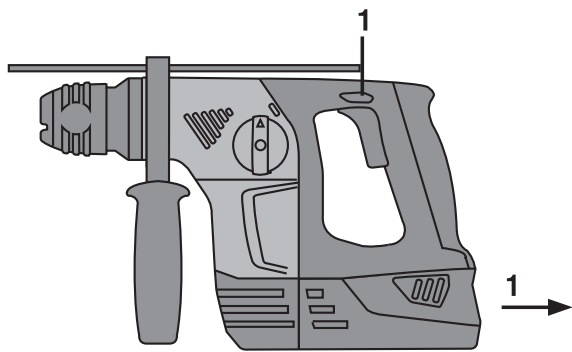
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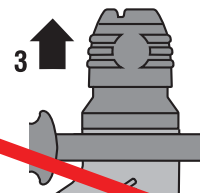
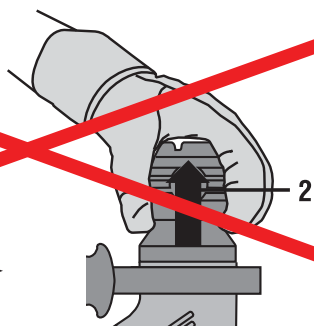
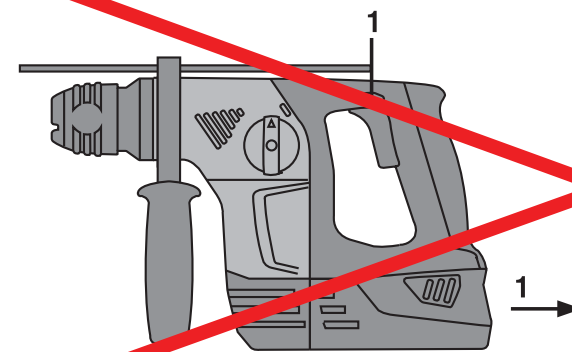
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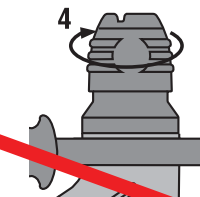
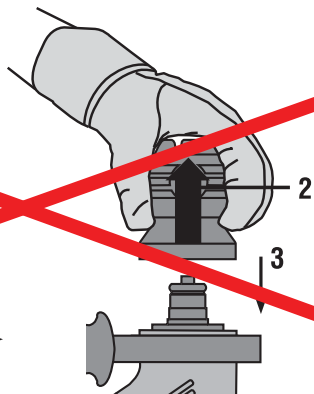
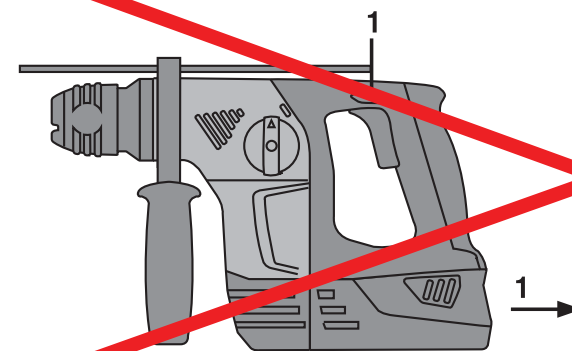
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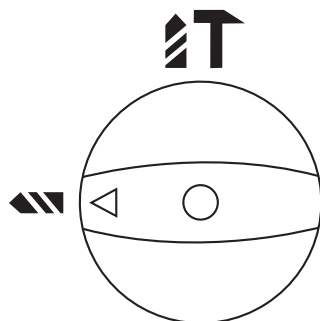
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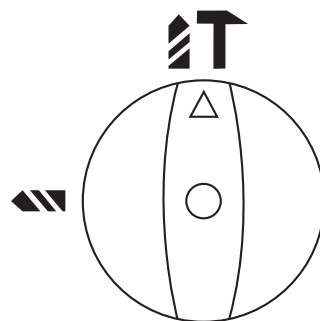
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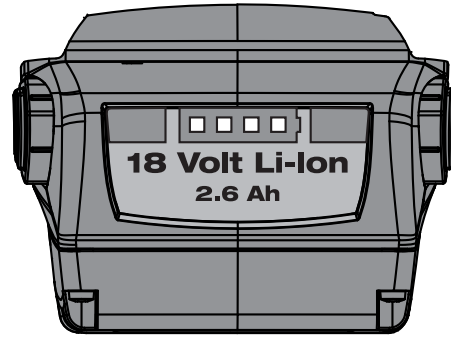
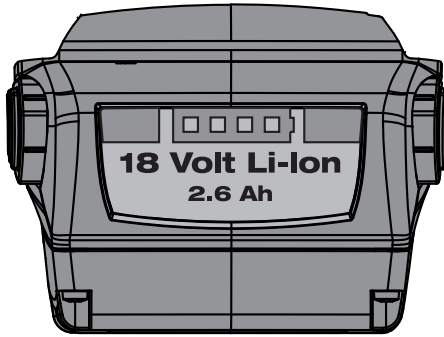


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ORIGINAL OPERATING INSTRUCTIONS

TE 4-A18 Cordless rotary hammer

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It is essential that the operating instructions are read before the power tool is operated for the first time.

Always keep these operating instructions together with the power tool.

Ensure that the operating instructions are with the power tool when it is given to other persons.

| Contents | Page |
|-------------------------------------|------|
| 1. General information | 1 |
| 2. Description | 2 |
| 3. Insert tools, accessories | 4 |
| 4. Technical data | 4 |
| 5. Safety instructions | 5 |
| 6. Before use | 8 |
| 7. Operation | 9 |
| 8. Care and maintenance | 11 |
| 9. Troubleshooting | 12 |
| 10. Disposal | 13 |
| 11. Manufacturer's warranty - tools | 14 |

❶ These numbers refer to the corresponding illustrations. The illustrations can be found on the fold-out cover pages. Keep these pages open while studying the operating instructions.

In these operating instructions, the designation "the power tool" always refers to the TE 4-A18 cordless rotary hammer.

Components, operating controls and indicators ❶

- ❶ Chuck
- ❷ Function selector switch
- ❸ Forward / reverse switch
- ❹ Control switch
- ❺ Battery release button (2 buttons)
- ❻ Battery
- ❼ Grip
- ❽ Side handle with depth gauge

1. General information

1.1 Safety notices and their meaning

DANGER

Draws attention to imminent danger that could lead to serious bodily injury or fatality.

WARNING

Draws attention to a potentially dangerous situation that could lead to serious personal injury or fatality.

CAUTION

Draws attention to a potentially dangerous situation that could lead to slight personal injury or damage to the equipment or other property.

NOTE

Draws attention to an instruction or other useful information.

1.2 Explanation of the pictograms and other information

Warning signs



General warning



Warning: electricity



Warning: caustic substances

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Obligation signs



Wear eye protection



Wear a hard hat



Wear ear protection



Wear protective gloves



Wear breathing protection

Symbols



Read the operating instructions before use



Return waste material for recycling.



Drilling without hammering



Hammer drilling



Volts



Direct current



Rated speed under no load



Revolutions per minute



Diameter



Forward / reverse

Location of identification data on the power tool

The type designation can be found on the type identification plate and the serial number on the side of the motor housing. Make a note of this data in your operating instructions and always refer to it when making an enquiry to your Hilti representative or service department.

Type:

Generation: 01

Serial no.:

2. Description

2.1 Use of the product as directed

The TE 4-A18 is a hand-held, cordless rotary hammer for drilling in concrete, masonry, steel and wood and for driving and removing screws.

Use only the batteries and chargers recommended by Hilti.

The power tool may be used only in a dry environment.

Do not use the power tool where there is a risk of fire or explosion.

Working on materials hazardous to the health (e.g. asbestos) is not permissible.

The power tool is designed for professional use and may be operated, serviced and maintained only by trained, authorized personnel. This personnel must be informed of any special hazards that may be encountered. The power tool and its ancillary equipment may present hazards when used incorrectly by untrained personnel or when used not as directed.

The working environment may be as follows: construction site, workshop, renovation, conversion or new construction.

Modification of the power tool or tampering with its parts is not permissible.
Do not use the battery as a power source for other unspecified appliances.
To avoid the risk of injury, use only genuine Hilti accessories and insert tools.
Observe the information printed in the operating instructions concerning operation, care and maintenance.
Nationally applicable industrial safety regulations must be observed.

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2.2 Chuck

TE-C CLICK chuck

2.3 Switches

Speed control switch for smooth starting
Function selector switch
Forward / reverse switch

2.4 Grips

Pivotable side handle with depth gauge
Grip

2.5 Protective features

Mechanical slip clutch
Electronic overload protection

2.6 Additional electronic features of the power tool

The power tool is equipped with electronic overload protection. The power tool switches off automatically in the event of overloading. When the control switch is released and then pressed again, the power tool immediately regains full power.

In addition, the temperature of the power tool's electronics is monitored to ensure extra-long life. In the event of the electronics overheating, the drive spindle will not rotate even when the control switch is pressed fully. The power tool can be used again as soon as the temperature is within the permissible range.

2.7 Lubrication

Permanent lubrication (grease)

2.8 Items supplied as standard

- 1 Power tool
- 1 Side handle with depth gauge
- 1 Operating instructions
- 1 Hilti toolbox (optional)
- 1 Cleaning cloth (optional)
- 1 Grease (optional)

2.9 Additional items required for operating the tool

B 18/2.6 Li-ion battery. C 4/36-ACS, C 4/36-ACS TPS or C 4/36 charger.

2.10 Li-ion battery charge status

| LEDs light constantly | LEDs blink | Charge status C |
|-----------------------|------------|----------------------|
| LED 1,2,3,4 | - | $C \geq 75\%$ |
| LED 1,2,3 | - | $50\% \leq C < 75\%$ |
| LED 1,2 | - | $25\% \leq C < 50\%$ |
| LED 1 | - | $10\% \leq C < 25\%$ |
| - | LED 1 | $C < 10\%$ |

NOTE

Indication of the charge status is not possible while the power tool is in operation or immediately after operation. If the battery charge status LEDs blink, please refer to the information given in section 9.

3. Insert tools, accessories

| | |
|---|---|
| Hammer drill bits | Ø 5...16 mm ($\frac{3}{16}$ " to $\frac{5}{8}$ ") |
| Anchor-setting tools | C-type connection end |
| Quick-release chuck for wood and metal drill bits | With smooth shank, hexagonal shank |
| Keyed chuck | With smooth shank, hexagonal shank |
| Wood drill bits | Ø 3...20 mm ($\frac{1}{8}$ " to $\frac{3}{4}$ ") |
| Wood drill bits (auger bits) | Ø Max. 14 mm (max. $\frac{9}{16}$ ") |
| Metal drill bits (for steel) | Ø 3...10 mm ($\frac{1}{8}$ " to $\frac{3}{8}$ ") |
| Charger for Li-ion batteries | C 4/36 |
| Charger for Li-ion batteries | C 4/36-ACS |
| Charger for Li-ion batteries | C 4/36-ACS TPS |
| Battery | B 18/2.6 Li-ion |

4. Technical data

Right of technical changes reserved.

| Power tool | TE 4-A18 |
|------------------------------------|---|
| Rated voltage (DC voltage) | 21.6 V |
| Weight of power tool | 3.3 kg (7.28 lb) |
| Dimensions (L x W x H) | 324 mm (12.76") x 94 mm (3.7") x 201 mm (7.91") |
| Drilling speed without hammering | 1,050/min |
| Hammer drilling speed | 945/min |
| No-load speed in hammer drill mode | 1,090/min |
| Single impact energy | 2.0 J |

Other information about the power tool

| | |
|-------|------------|
| Chuck | TE-C Click |
|-------|------------|

| Battery | B 18/2.6 Li-ion |
|---------------------------|-------------------|
| Rated voltage | 21.6 V |
| Capacity | 2.6 Ah |
| Energy capacity | 56.16 Wh |
| Weight | 0.78 kg (1.72 lb) |
| Type of cell | Li-ion |
| Temperature monitoring | NTC |
| Deep discharge protection | Yes |

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5. Safety instructions

NOTE

The safety rules in section 5.1 contain all general safety rules for power tools which, in accordance with the applicable standards, must be listed in the operating instructions. Accordingly, some of the rules listed may not be relevant to this tool.

5.1 General power tool safety warnings

- a) **WARNING! Read all safety warnings and instructions.** Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. **Save all warnings and instructions for future reference.** The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

5.1.1 Work area safety

- a) **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- c) **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

5.1.2 Electrical safety

- a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and**

refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.

- c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

5.1.3 Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- b) **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on

the switch or energising power tools that have the switch on invites accidents.

- d) **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
- g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.

5.1.4 Power tool use and care

- a) **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
- b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
- e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
- f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) **Use the power tool, accessories and tool bits etc. in accordance with these instructions taking into account the working conditions and the work to be performed.** Use of the power tool for operations

different from those intended could result in a hazardous situation.

5.1.5 Battery tool use and care

- a) **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- b) **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
- c) **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
- d) **Under abusive conditions, liquid may be ejected from the battery, avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.

5.1.6 Service

- a) **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

5.2 Additional safety rules

5.2.1 Personal safety

- a) **Wear ear protectors.** Exposure to noise can cause hearing loss.
- b) **Use auxiliary handle(s), if supplied with the tool.** Loss of control can cause personal injury.
- c) **Hold power tools by insulated gripping surfaces, when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- d) **Always hold the power tool securely with both hands on the grips provided. Keep the grips dry, clean and free from oil and grease.**
- e) **Breathing protection must be worn if the power tool is used without a dust removal system for work that creates dust.**

- f) **Improve the blood circulation in your fingers by relaxing your hands and exercising your fingers during breaks between working.**
- g) **Avoid touching rotating parts. Switch the power tool on only after bringing it into position at the workpiece.** Touching rotating parts, especially rotating insert tools, may lead to injury.
- h) **Activate the safety lock (forward / reverse switch in the middle position) before storing or transporting the power tool.**
- i) **When restarting after the electronic overload protection system has switched the tool off, care must be taken to ensure that the power tool is held securely with both hands on the grips provided.**
- j) **Children must be instructed not to play with the appliance.**
- k) **The appliance is not intended for use by children, by debilitated persons or those who have received no instruction or training.**
- l) **WARNING: Some dust created by grinding, sanding, cutting and drilling contains chemicals known to cause cancer, birth defects, infertility or other reproductive harm; or serious and permanent respiratory or other injury.** Some examples of these chemicals are: lead from lead-based paints, crystalline silica from bricks, concrete and other masonry products and natural stone, arsenic and chromium from chemically-treated lumber. Your risk from these exposures varies, depending on how often you do this type of work. **To reduce exposure to these chemicals, the operator and bystanders should work in a well-ventilated area, work with approved safety equipment, such as respiratory protection appropriate for the type of dust generated, and designed to filter out microscopic particles and direct dust away from the face and body. Avoid prolonged contact with dust. Wear protective clothing and wash exposed areas with soap and water.** Allowing dust to get into your mouth, eyes, or to remain on your skin may promote absorption of harmful chemicals.

5.2.2 Careful use of the power tool

- a) **Secure the workpiece. Use clamps or a vice to secure the workpiece.** The workpiece is thus held more securely than by hand and both hands remain free to operate the power tool.

- b) **Check that the insert tools used are compatible with the chuck system and that they are secured in the chuck correctly.**

5.2.3 Careful use of the cordless tool

- a) **Ensure the switch is in the off position before inserting battery pack.** Inserting the battery pack into power tools that have the switch on invites accidents.
- b) **Observe the special instructions applicable to the transport, storage and use of Li-ion batteries.**
- c) **Do not expose batteries to high temperatures or fire.** This presents a risk of explosion.
- d) **Batteries must not be opened or dismantled, squashed, heated to temperatures over 100°C or incinerated.** A risk of fire, explosion or injury through contact with caustic substances may otherwise result.
- e) **Do not use batteries other than those approved for use with the applicable power tool or appliance.** Use of other batteries or use of the battery for purposes for which it is not intended presents a risk of fire and explosion.
- f) **Do not charge or continue to use damaged batteries (e.g. batteries with cracks, broken parts, bent or pushed-in and/or pulled-out contacts).**
- g) **Avoid short-circuiting the battery. Check that the terminals on the battery and in the power tool are free from foreign objects before inserting the battery in the power tool.** Short circuiting the battery terminals presents a risk of fire, explosion and chemical burns.
- h) **Avoid ingress of dampness.** Dampness may cause a short circuit resulting in a risk of burning injury or fire.

5.2.4 Electrical safety



Before beginning work, check the working area (e.g. using a metal detector) to ensure that no concealed electric cables or gas and water pipes are present. External metal parts of the power tool may become live, for example, when an electric cable is damaged accidentally. This presents a serious risk of electric shock.

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5.2.5 Work area safety

- a) **Ensure that the workplace is well lit.**
- b) **Ensure that the workplace is well ventilated.**
Exposure to dust at a poorly ventilated workplace may result in damage to the health.
- c) **If the work involves breaking right through, take the appropriate safety measures at the opposite side.** Parts breaking away could fall out and / or fall down and injure other persons.

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5.2.6 Personal protective equipment



The user and any other persons in the vicinity must wear ANSI Z87.1-approved eye protection, a hard hat, ear protection, protective gloves and breathing protection while the machine is in use.

6. Before use



6.1 Battery use and care

NOTE

Battery performance drops at low temperatures. Never use the battery until the cells become fully discharged. Change to the second battery as soon as a drop in performance is noticed. Recharge the battery immediately so that it is ready for reuse.

Store the battery in a cool, dry place. Never store the battery where it is exposed to direct sunlight or sources of heat, e.g. on heaters / radiators or behind a motor vehicle windscreen. Batteries that have reached the end of their life must be disposed of safely and correctly to avoid environmental pollution.

6.2 Charging the battery



DANGER

Use only the Hilti batteries and Hilti chargers listed under "Accessories".

6.2.1 Charging a new battery for the first time

Charge the battery fully before using it for the first time.

6.2.2 Charging a previously used battery

Ensure that the outer surfaces of the battery are clean and dry before inserting it in the corresponding charger.

For information about the charging process, read the operating instructions for the charger and section 2.10 Charge status of the Li-ion battery in these operating instructions.

Li-ion batteries are ready for use at any time, even when only partly charged. Charging progress is indicated by the LED display (see charger operating instructions).

6.3 Fitting the battery 2

CAUTION

Before fitting the battery, check that the power tool is switched off and that the safety lock is engaged (forward/reverse switch in the middle position). Use only the Hilti batteries approved for use with this power tool.

1. Push the battery into the power tool from the rear until it is heard to engage with a double click.
2. **CAUTION A falling battery may present a risk of injury to yourself or others.**
Check that the battery is seated securely in the power tool.

6.4 Removing the battery 3

1. Press both battery release buttons.

2. Pull the battery out of the power tool toward the rear.

6.5 Fitting the side handle 4

1. Set the forward / reverse switch to the middle position or remove the battery from the power tool.

2. Release the side handle clamping band by turning the handle counterclockwise.
3. Remove the depth gauge from the side handle in order to avoid injury.
4. Slide the side handle clamping band over the chuck and onto the shaft.
5. Pivot the side handle into the desired position.
6. Fit the depth gauge and secure the side handle in the desired position by turning the grip firmly until tight.

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7. Operation



CAUTION

In the event of the drill bit sticking, the power tool will pivot about its own axis. Always use the power tool with the side handle fitted and hold it securely with both hands so that the resulting opposing force causes the slip clutch to release in the event of the drill bit sticking. Use clamps or a vice to hold the workpiece securely.

7.1 Preparing for use

7.1.1 Fitting the insert tool 5

CAUTION

Wear protective gloves when changing the insert tool.

1. Set the forward / reverse switch to the middle position or remove the battery from the power tool.
2. Check that the connection end of the insert tool is clean and lightly greased. Clean it and grease it if necessary.
3. Check that the sealing lip of the dust shield is clean and in good condition. Clean the dust shield if necessary or replace it if the sealing lip is found to be damaged (please refer to the "Care and maintenance" section).
4. Push the insert tool into the chuck and rotate it while applying slight pressure until it engages in the guide grooves.
5. Push the insert tool into the chuck until it is heard to engage.
6. Check that the insert tool has engaged correctly by pulling it.

7.1.2 Adjusting the depth gauge / side handle 6

1. Release the side handle clamping band by turning the handle counterclockwise.
2. Pivot the side handle into the desired position.
3. Adjust the depth gauge to the desired drilling depth.
4. Tighten the side handle securely by turning the grip section. This also clamps the depth gauge in position.

7.1.3 Removing the insert tool 7

CAUTION

Wear protective gloves when changing insert tools as the insert tool will get hot during use.

1. Set the forward / reverse switch to the middle position or remove the battery from the power tool.
2. Open the chuck by pulling back the chuck release sleeve.
3. Pull the insert tool out of the chuck.

7.2 Operation



CAUTION

Working on the material may cause it to splinter. **Wear eye protection and protective gloves. Wear breathing protection if no dust removal system is used.** Splintering material presents a risk of injury to the eyes and body.

CAUTION

The work generates noise. **Wear ear protectors.** Exposure to noise can cause hearing loss.

7.2.1 Working at low temperatures

en NOTE

The hammering mechanism works only when the power tool has reached a minimum operating temperature.

Bring the drill bit briefly into contact with the base material while allowing the power tool to run under no load until the minimum operating temperature is reached. If necessary, repeat this procedure until the hammering mechanism begins to operate.

7.2.2 Forward / reverse

NOTE

The forward / reverse switch is used to select the direction of rotation of the drive spindle. An interlock prevents switching while the motor is running. The control switch is locked when the forward / reverse switch is in the middle position.

For forward rotation, push the forward / reverse switch on the side of the power tool toward the chuck in the direction of the arrow.

For reverse rotation, push the forward / reverse switch on the side of the power tool toward the grip in the direction of the arrow.

Bring the forward / reverse switch into the desired position.

7.2.3 Drilling without hammering 10

1. Set the forward / reverse switch to the "forward" position before beginning drilling.
2. Turn the function selector switch until it engages in the "Drilling without hammering" position. Do not operate the function selector switch while the motor is running.
3. Bring the side handle into the desired position and check that it is fitted correctly and secured.
4. Insert the battery.
5. Position the power tool and drill bit at the point where the hole is to be drilled.
6. Press the control switch slowly (drill at a low speed until the drill bit centers itself in the hole).

7. Press the control switch fully to continue drilling with full power.
8. Adjust the pressure applied to the power tool according to the material you are working on. This will ensure the optimum rate of drilling progress.

7.2.4 Hammer drilling 11

1. Set the forward / reverse switch to the "forward" position before beginning drilling.
2. Turn the function selector switch until it engages in the "Hammer drilling" position. Do not operate the function selector switch while the motor is running.
3. Bring the side handle into the desired position and check that it is fitted correctly and secured.
4. Insert the battery.
5. Position the power tool and drill bit at the point where the hole is to be drilled.
6. Press the control switch slowly (drill at a low speed until the drill bit centers itself in the hole).
7. Press the control switch fully to continue drilling with full power.
8. Adjust the pressure applied to the power tool according to the material you are working on. This will ensure the optimum rate of drilling progress.
9. Reduce drilling speed shortly before breaking through in order to avoid spalling.

7.2.5 Reading the charge status LED display on Li-ion batteries 12

NOTE

The charge status cannot be indicated while the power tool is in operation. LED 1 blinks when the battery is fully discharged or when it is too hot (temperature above 80°C). The battery must then be inserted in the charger. If all 4 LEDs blink, this indicates that the power tool has been overloaded or has overheated.

The Li-ion battery features a charge status LED display. The charge status is indicated by the LEDs on the battery during charging (please refer to the operating instructions for the charger). When the battery is not in use, pressing one of the battery release buttons or inserting the battery into the power tool causes the battery charge status to be displayed by the four LEDs for three seconds.

See section: 2.10 Li-ion battery charge status

8. Care and maintenance

CAUTION

Before beginning cleaning, remove the battery from the power tool in order to prevent unintentional starting.

8.1 Care of insert tools

Clean off dirt and dust deposits adhering to the insert tools and protect them from corrosion by wiping the insert tools from time to time with an oil-soaked rag. Check that the connection end of the insert tool is clean and lightly greased. Clean it and grease it if necessary.

8.2 Care of the power tool

CAUTION

Keep the power tool, especially its grip surfaces, clean and free from oil and grease. Do not use cleaning agents which contain silicone.

The outer casing of the power tool is made from impact-resistant plastic. Sections of the grip are made from a synthetic rubber material.

Never operate the power tool when the ventilation slots are blocked. Clean the ventilation slots carefully using a dry brush. Do not permit foreign objects to enter the interior of the power tool. Clean the outside of the power tool at regular intervals with a slightly damp cloth. Do not use a spray, steam pressure cleaning equipment or running water for cleaning. This may negatively affect the electrical safety of the power tool.

8.3 Cleaning or replacing the dust shield

Clean the dust shield on the chuck with a dry, clean cloth at regular intervals. Clean the sealing lip by wiping it carefully and then grease it again lightly with Hilti grease. It is essential that the dust shield is replaced if the sealing lip is found to be damaged. Push the tip of a screwdriver under the edge of the dust shield and prise it out toward the front. Clean the area of the chuck in contact with dust shield and then fit a new dust shield. Press it in firmly until it engages.

8.4 Care of the Li-ion battery

Avoid entrance of moisture.

Charge the battery fully before using it for the first time.

In order to achieve maximum battery life, stop discharging the battery as soon as a significant drop in performance is noticed.

NOTE

If use of the power tool continues, further battery discharge will be stopped automatically before the battery cells suffer damage.

Charge the battery with the Hilti charger approved for use with Li-ion batteries.

NOTE

- A conditioning charge (as is required with NiCd or NiMH batteries) is not necessary.

- Interruption of the charging procedure has no negative effect on battery life.

- Charging can be started at any time with no negative effect on battery life. There is no memory effect (as with NiCd or NiMH batteries).

- For best results, batteries should be stored fully charged in a cool dry place. Avoid charging the battery in places subject to high ambient temperatures (e.g. at a window) as this has an adverse effect on battery life and increases the rate of self-discharge.

- If the battery no longer reaches full charge, it may have lost capacity due to aging or overstressing. It is possible to continue working with a battery in this condition but it should be replaced in good time.

8.5 Maintenance

WARNING

Repairs to the electrical section of the power tool may be carried out only by trained electrical specialists.

Check all external parts of the power tool for damage at regular intervals and check that all controls operate faultlessly. Do not operate the power tool if parts are damaged or when the controls do not function faultlessly. If necessary, the power tool should be repaired by Hilti Service.

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8.6 Checking the power tool after care and maintenance

After carrying out care and maintenance work on the power tool, check that all protective and safety devices are fitted and that they function faultlessly.

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9. Troubleshooting

| Fault | Possible cause | Remedy |
|---|--|---|
| The power tool doesn't run. | The battery is discharged or fitted incorrectly. | The battery must be heard to engage with a double click or, respectively, needs to be charged. |
| | Electrical fault. | Remove the battery from the power tool and contact Hilti Service. |
| | The battery is too hot or too cold. | Bring the battery to the recommended working temperature. |
| The power tool doesn't run and 1 LED blinks. | The battery is discharged. | Change the battery and recharge the discharged battery. |
| | The battery is too hot or too cold. | Bring the battery to the recommended working temperature. |
| The power tool doesn't run and all 4 LEDs blink. | The power tool has been overloaded. | Release the control switch and press it again. |
| | The overheating prevention cut-out has been activated. | Allow the power tool to cool down. Clean the ventilation slots. |
| No hammering action. | The power tool is too cold. | Allow the power tool to warm up to the minimum operating temperature. See section: 7.2.1 Working at low temperatures |
| | The function selector switch is set to "Drilling without hammering". | Set the function selector switch to "Hammer drilling". |
| | The forward/reverse switch is set to reverse rotation. | Set the forward/reverse switch to forward rotation. |
| The control switch can't be pressed, i.e. the switch is locked. | The forward / reverse switch is in the middle position (transport lock engaged). | Push the forward / reverse switch to the left or right. |
| The drive spindle doesn't rotate. | The permissible operating temperature of the power tool's electronics has been exceeded. | Allow the power tool to cool down. |
| | The permissible battery operating temperature has been exceeded. | Bring the battery to the recommended working temperature. |
| | The battery is discharged. | Change the battery and recharge the discharged battery. |
| The power tool switches itself off automatically. | The overload cut-out has been activated. | Release the control switch, reduce the load on the power tool and then press the switch again. |

| Fault | Possible cause | Remedy |
|--|---|--|
| The battery runs down more quickly than usual. | Battery condition is not optimal. | Have battery condition diagnosed by Hilti Service or replace with a new battery. |
| The battery doesn't engage with an audible double click. | The retaining lugs on the battery are dirty. | Clean the retaining lugs and check that the battery engages securely. Contact Hilti Service if the problem persists. |
| The power tool or the battery gets very warm. | Electrical fault. | Switch the power tool off immediately, remove the battery and contact Hilti Service. |
| | The power tool has been overloaded (application limits exceeded). | Use the right power tool for the job (don't use a low-powered tool for heavy work). |
| The insert tool can't be released. | The chuck is not pulled back fully. | Pull the chuck back as far as it will go and remove the cutting tool. |
| The tool makes no progress. | The forward/reverse switch is set to reverse rotation. | Set the forward/reverse switch to forward rotation. |

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10. Disposal

CAUTION

Improper disposal of the equipment may have serious consequences: The burning of plastic components generates toxic fumes which may present a health hazard. Batteries may explode if damaged or exposed to very high temperatures, causing poisoning, burns, acid burns or environmental pollution. Careless disposal may permit unauthorized and improper use of the equipment. This may result in serious personal injury, injury to third parties and pollution of the environment.

CAUTION

Dispose of defective batteries without delay. Keep them out of reach of children. Do not attempt to open or dismantle batteries and do not dispose of them by incineration.

CAUTION

Dispose of the batteries in accordance with national regulations or return them to Hilti.



Most of the materials from which Hilti power tools or appliances are manufactured can be recycled. The materials must be correctly separated before they can be recycled. In many countries, Hilti has already made arrangements for taking back your old power tools or appliances for recycling. Please ask your Hilti customer service department or Hilti representative for further information.

11. Manufacturer's warranty - tools

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Hilti warrants that the tool supplied is free of defects in material and workmanship. This warranty is valid so long as the tool is operated and handled correctly, cleaned and serviced properly and in accordance with the Hilti Operating Instructions, and the technical system is maintained. This means that only original Hilti consumables, components and spare parts may be used in the tool.

This warranty provides the free-of-charge repair or replacement of defective parts only over the entire lifespan of the tool. Parts requiring repair or replacement as a result of normal wear and tear are not covered by this warranty.

Additional claims are excluded, unless stringent national rules prohibit such exclusion. In particular, Hilti is not obligated for direct, indirect, incidental or consequential damages, losses or expenses in connection with, or by reason of, the use of, or inability to use the tool for any purpose. Implied warranties of merchantability or fitness for a particular purpose are specifically excluded.

For repair or replacement, send the tool or related parts immediately upon discovery of the defect to the address of the local Hilti marketing organization provided.

This constitutes Hilti's entire obligation with regard to warranty and supersedes all prior or contemporaneous comments and oral or written agreements concerning warranties.



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